



# NEWSLETTER OF THE Z88 USERS' CLUB

MAY/JUNE 1988

VOL. 2 NO. 3

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THE CLUB ADDRESS

Any articles for Z88 EPROM or any other correspondence should be sent to:

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NG10 4NG

Always include your Membership Number with any correspondence. This is printed on the address label of each issue of Z88 EPROM.

EDITORIAL

I am putting the finishing touches to this issue during the Easter break - it is certainly nice to have a little extra free time to apply to the Club, compared to the normally hectic regime I try to apply to get a reasonable response time to incoming mail.

This issue, I am pleased to announce the availability of a new piece of software in the Club Software Library. Richard Russell (0365), who wrote the Z80 version of BBC BASIC used in the Z88, has written a patch program to extend the facilities available to BASIC. The BASIC PATCH extends the BASIC primarily in two ways:

A new command, \*EDIT, gives you a much needed line editor, which can also be used to concatenate several lines.

Six new commands implement graphics in BASIC, in a new graphics window on the right of the display.

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See later in this issue for more details on BASIC PATCH, together with information on how to send for a copy.

The aim for the next couple of months is to try to expand the Club Software Library - so if you have any programs which might be of use or interest to other members, please send them in.

The Z88 is fast approaching its first birthday - the first mail-order machines were sent out early in June last year - and this is perhaps a good time to air a few thoughts about the development of the machine.

After some early problems with reliability, machines now seem to be very good in this respect. The number of letters to the Club mentioning machine problems has dropped dramatically. (Don't tell me, you can't write to me because your Z88 has broken down...!)

Despite the fact that CC have appointed several national distributors, from which 'independent' computer dealers can buy the complete Z88 range, in most areas it is still only available from Dixons and Comet. This in itself would not be a bad thing, if both Dixons and Comet offered a good level of service, combined with good availability of the range. Unfortunately, this is not yet the case.

Leaving aside the service (or lack of it, in some instances!), several people have complained that they cannot find any Z88s or accessories in their local branches. None of my local Dixons had any RAM cards, only one had EPROMS. My local Comet was out of

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stock of the machine, but did have mains adaptors! Nowhere could I find EPROM erasers, PC Link or printer cables.

The situation would be better if the Z88 was widely supported by independent computer specialists, but apart from the likes of Sector Software, Wordmongers, Micro Anvika et al, support is poor. Why should this be so?

My two local computer dealers have expressed the view that the Z88 is simply "too risky" - a machine with a limited market and no software. While I vehemently oppose the argument that the machine has no market, I'm afraid I have to agree with the latter point about software.

If CC are not careful, and if they don't act quite quickly, the Z88 will go the same way as the QL.

Many people would argue that the QL was nipped in the bud by its early delivery and reliability problems. While these undoubtedly didn't help, the real cause of its demise was a lack of software for the machine.

So many software houses were 'waiting', in order to gauge the popularity of the machine, before spending precious programming time on what could turn out to be a non-starter.

Software houses appear to be playing the same game with the Z88. With the exception of a handful of enlightened people who realise and want to tap the potential market, everyone else is sitting on the fence waiting for the situation to mature.

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Cambridge Computer have got to improve the situation - they need to consolidate their position with independent dealers, to widen their support for the Z88. Perhaps some kind of promotional pack - a machine and set of accessories at a discounted price - would help here. The other thing CC must do is to market their machine to software houses - Z88 users are crying out for software support.

Far be it from me to try to tell CC how to promote their baby - what I am doing however is identifying very real problems, which should be seriously considered.

The software market for the QL is now more buoyant than it has ever been - but this has come too late to save what was (and is) a very good machine, launched way ahead of its time. Let us all hope that the Z88 will not follow the QL's example.

### NEWSLINES

\*\* A spelling checker for the Z88 is being developed by **Computer Concepts** of Hemel Hempstead. The program is being converted from their popular BBC spell checker, Spellmaster. Proposed specifications include a 50,000-plus word dictionary, anagram solver and crossword aid. The program will be supplied on a 128k EPROM card, and Computer Concepts guess at a price of about £60. A recent report on Prestel suggested a time scale of 3 months before the program will be available. However, when I rang Computer Concepts a spokesman said that software development can take longer than

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expected, but the program should be out by the year end!

More details from Computer Concepts at: Gaddesden Place, Hemel Hempstead, Herts. HP2 6EX. Telephone 0442 63933.

\*\* As some of you will already know, there has been a shortage of 128k RAM cards for the Z88. This is apparently due to the worldwide shortage of RAM chips, which has resulted in a sharp price rise on the whole range of RAM chips. **Amstrad** and **Atari** have recently announced price rises over their product range to cover these increases, but so far CC have not done the same. I suspect this is because the basic Z88 only has one 32k CMOS RAM chip, which cannot count for more than 10% of the production costs of the machine. At the moment CC tell me that they are up to date with 128k RAM orders, and they do have them in stock.

\*\* **Micronet** have started an area within the ZX Spectrum Microbase, called **88 Corner**. It has hints and tips on the Z88, short articles (currently about the CLI and editing BASIC with PipeDream), and two pieces of ZX Spectrum telesoftware for the Z88: **Dreamword** transfers text files between Tasword 3 and your Z88, while **Backupz** backs up Z88 files to either tape or Microdrive on the Spectrum.

88 Corner is on page 80000181 of Micronet. Prestel's other Z88 area - **Double 8** - edited by Tony Cox, is still going strong on page 810429.

\*\* The elusive 512k RAM card is now available "in small quantities" according to a CC source. If anyone out there has one on order, please let me know when it arrives.

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\*\* **Wordmongers** have opened up an area on their Phone Post bulletin board system just for the Z88. They plan to make software available in the area, which can be downloaded by anyone with their ZTerm comms program or other X-Modem software (and a modem, of course.) The PPS bulletin board is on 0296 437262.

\*\* A new Z88 ROM is being developed, specifically for the version of the machine to be sold in France. This will incorporate all those pretty little accented characters, and work with a new keyboard mat.

\*\* The Z88 version of the BBC BASIC manual, being put together by **M-Tec**, should be ready within the next two months. I'm told they are just waiting for one or two final details from CC before going to print. If you are interested in the book, you can contact M-Tec and ask to be put on their mailing list. They will then contact you as soon as the manual is available. Contacts: M-Tec Computer Services, 4 Church Hill, Reepham, Norfolk, NR10 4JL. Telephone 0603 870620.

\*\* **Wordmongers** have announced plans to produce a tape interface for the Z88. This would allow you to archive Z88 files onto cassette, to free RAM or EPROM space. At the moment the interface is well down the list of developments, but if enough interest is shown this situation may change. See **Wordmongers'** ad in this issue for contact details.

\*\* The first book about the Z88 is now widely available. Called **Z88 Computing** it is written by Ian Sinclair (no relation), and is published

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by David Fulton at £9.95. My immediate impression was that it was a little expensive for what is basically a re-write of the manual, but as ever, you must judge for yourselves. There will be a full review of the book in a future issue.

\*\* There is a good chance that CC may produce another version of the Z88 ROM, correcting some of the bugs in the current version, and possibly adding one or two new features. This is something of a long term project, given the obvious importance of getting everything absolutely right, so no timescale has yet been mentioned.

One role that you, the members, can play is in documenting bugs in the current ROM. I know of three bugs in version 2.2/3.0: 'In Use' bug in the Filer, which leads to files which cannot be deleted. 'Allow Line Feeds' bug in the PrinterEd, which gives no line feeds with some printers. 'Parity' bug in the Terminal, documented elsewhere in this issue. If you know of any bugs other than the three mentioned above, document it carefully such that I can reproduce it, and send it to the Club. I will pass any new bugs onto CC.

\*\* **STOP PRESS:** Just prior to my sending this issue to the printers, a Miracle Systems Z88 Modem dropped through my letterbox. It was too late to do a full review for this issue, but one will appear in the July/August Z88 EPROM. If you cannot wait, I will be doing an interim review which will be ready by the time you read this. If you want a copy, please send me a stamped, self-addressed envelope asking for the "Miracle Modem Review."



MEMBERS' LETTERS

Paul Greenhalgh (0328)  
Aylesbury

Dear Roy,

Re. ZEUS & The Z88 Users' Club

I feel that perhaps I ought to put the record straight regarding the ZEUS newsletter, just in case there has been any confusion.

I have been responsible for producing a newsletter for Nascom/Gemini/80-BUS users since 1978. For various reasons, for example when Nascom went into receivership, the newsletter has changed name from time to time, and it is currently known as *Scorpio News*. The primary micro-processor used by the subscribers to *Scorpio News*, many of whom have subscribed to it and its predecessors for the full 10 years, is the Z80. As a former engineer for Nascom, and then as Technical Manager for Gemini until I set up Scorpio Systems just over a year ago, it is a processor with which I am obviously rather familiar.

Unfortunately the advent of the IBM PC, and rather more relevant, its low cost clone relatives, has resulted in a gradual decline in the number of users of the equipment covered by *Scorpio News*. This, regretfully but inevitably, has also lead to a steady decline in subscribers.

When I first read about the Z88 I became very excited. Here was an excellent application of the Z80 CPU, and I felt that there would be a very large market for it. I therefore decided that Scorpio Systems should produce a user newsletter for the Z88, ZEUS. I wrote to Clive Sinclair almost exactly a year ago explaining my idea, and received an enthusiastic response from him saying that I would receive a Z88 as soon as they were available.

Over the next few months I noticed various press comments about delays in Z88 production, and I also became rather involved in other

projects. I thus passively waited for news of the Z88 from Cambridge Computer, rather than actively chasing them.

Imagine my surprise when one day I suddenly discovered that the Z88 was in full-scale production. Consequently I swung into action, and prepared a leaflet about **ZEUS** for distribution at the PCW show. Consider how I then felt when I discovered that another user group had also been set up!

Anyway, whilst **ZEUS** (which incidentally stands for Z Eighty-eight USer) did start to attract subscribers, there was not the quantity needed to cover the minimum costs of setting up and printing a regular newsletter. Eventually I decided to concede that, with the pressure of other work, and with "the other" user group getting more and more established, it would be stupid (as well as unviable) to try and run a competitor — there really isn't room for two of us.

Consequently, as subscribers to **ZEUS** will know, a "deal" was struck with Roy, for **The Z88 Users' Club** to absorb the **ZEUS** subscribers.

I am sure that this is the best for everyone. I do apologise if anyone was inconvenienced by my (in)actions. However, Roy is doing an excellent job, as I know you would all agree, and I am sure that the combined forces of both subscription lists will lead to **Z88 EPROM** getting better and better.

Finally, having produced a user newsletter for nearly 10 years, I do know the extreme importance of subscriber participation. So, to all subscribers out there, please do involve yourself, giving as well as taking. Every once in a while send in a letter or a brief article, perhaps about your use and experiences with the Z88, about related hardware or software products, or possibly about your ordeals with the suppliers of these items. Don't just rely on others to do this. The end results WILL justify this small effort on YOUR part.

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Eric Robertson (0364)  
Edinburgh

Dear Roy

Many thanks for sending the 'Z88 EPROM's. I enjoyed reading them very much and found a lot of useful information. I started this letter about 4 weeks ago and have been trying to find time to finish it, and now the latest edition (Vol 2 No 2) has just arrived! However I have some spare time, before going to the shops with my wife(!), so will complete it now.

The following bits and pieces might be of interest to members:

One of my machines is a BBC Master 512 and I've found that the terminal emulator that comes with this can be used for transferring and printing files (Perhaps supplied with the Master 128 as well?). When it's entered with a \*TERMINAL command it must be switched to BBC mode by typing in BBC then RETURN. Now the file can either be printed out via the Beeb or spooled to disc.

In the former case the printer is turned on with CTRL-f3 and then a RETURN is needed to put the emulator into receiving mode. The file can then be printed from within Pipedream with the  $\diamond$ PO command.

Note the the printer codes have all to be adjusted by adding a 1 before each code since the Beeb needs a VDU 1 to send each code to the printer. Remember that after adjusting the codes in PrinterEd a  $\diamond$ PU is needed to update the printer driver.

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To transfer a file to a Beeb disc the usual \*SPOOL is entered at the = in the emulator followed by the filename and a RETURN and then a second RETURN to get into receive mode. In this case Import/Export is used in the Z88 to transfer the file - transfers can be made from the Beeb to the Z88 in a similar way, EXECuting the Beeb file. I've found I can transfer the files from the Z88 at 19200 baud but for some reason I've to cut this to 9600 for transfers in the reverse direction.

My machine in the office is an IBM AT-compatible one, and I had difficulty in transferring Pipedream spreadsheets to this machine because the usual transfer passed over the formulae in the boxes rather than the results. If I'd had Lotus 1-2-3 I would have been able to do something with this but I don't.

What I wanted was some way of 'printing' these files to the IBM machine but I'm not very familiar with the office machine's operating system to be able to accept a printed file in a similar way to what I'd done on the Beeb. I found though that a printer file could be spooled to RAM in the Z88 by making up an 'execute' file with a .= filename and then using a ◊PO to print it to that file in RAM (see listing at end).

The trouble then was that this file contained a lot of codes to indicate for example the page number and which column the text/numbers were in, as well as any highlight codes (not the printer control codes). I got round this by writing a PASCAL program for the 'IBM' machine

which stripped out the unnecessary codes and converted the highlight codes into the appropriate printer ones. If anyone is interested in this program I can either give them a listing of the source code or for someone without a Turbo Pascal compiler (version 4.0) I can provide a copy of the EXE program on disc.

This is the execute file to direct PipeDream printed output to a file. The first line opens up the file PRINTOUT to receive the output and the next one enters Pipedream and does a  $\diamond$ PO to print the file. Note that the PipeDream file that will be printed out will be the first of the PipeDreams to be suspended, and not the one from which the Filer was entered to to execute the file (unless there were no other PipeDreams in use.)

```
./PRINTOUT  
#P|PO~E
```

Some other miscellaneous things:

1 When cataloguing files \*//\* does not give every file as the manual implies - just those in sub-directories, not the ones in the main directory.

2 Charles Schofield writes about 'Execute' files in Vol 1 No 2 - these are very handy but you have to beware if more than one Pipedream file is suspended because the manual is wrong in that  $\square$  P does not re-enter the most recent Pipedream file but the first one that was suspended.

3 There is a command in the Index <>PURGE which is not referred to in the manual - this does a soft reset.

4 Charles Schofield's difficulty with loading a file into a particular slot in Pipedream (Vol 2 No 2, p6) is because he is not loading in a plain text file. If he saves the original spreadsheet as plain text and then loads it into slot A21 as plain text he'll get the correct result.

5 I wonder if Ronnie Mackay's problem with device 1 switching back to device 0 (Vol 2 No 2, p14) is because he hasn't set the default device to RAM.1 on the Control Panel and this determines the device for any new application entered?

-----

John Leitch (0310)  
Belfast

Dear Roy,

I just received my first copy of Z88 EPROM and it takes me back. I was one of the first subscribers to BEEBUG, for the BBC micro, when it came out over 5 years ago (I think). Your magazine is very similar. I hope you have as much success as BEEBUG.

Anyway, first question, who is Kim Howard? I was looking through the BASIC section of the Z88's ROM and I found the following, "Sinclair Z88 BASIC dedicated to Kim Howard". This was at location &FE45 and I don't think this changes but I'm not sure. If you want to check this try the following program from BASIC.

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```
10 FOR I% = &FE45 to &FE6E
20   PRINT;CHR$I%;
30   NEXT
40 PRINT
50 END
```

I have a few other bits of information and the answer to a question in the last magazine, hopefully. Did you know that you can hold a scrolling screen by pressing <> and SHIFT simultaneously. Did you also know that the various applications remember the CAPS LOCK setting for that application.

I noticed someone had asked about the creation date and last updated date being the same when the catalogue is listed. This appears to be because most operations create a new file when a file is saved. However you can see a difference in these dates when updating data files. Create a data file using the following program:

```
10 X=OPENUP"ABC.DAT"
20 FOR I% = 1 TO 10
30   INPUT#X,A$
40   PRINTA$
50   NEXT
60 CLOSE#X
70 END
```

This will create a file called ABC.DAT. You should now check the creation date using the catalogue option on the FILER. Now run the following program:

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```
10 X=OPENUP"ABC.DAT"  
20 FOR I% = 1 TO 10  
30   INPUT#X,A$  
40   PRINTA$  
50   NEXT  
60 CLOSE#X  
70 END
```

for ABC.DAT, there should now be a difference between the creation date and the updated date.

I've also used the IBM transfer software and converted PIPEDREAM files to LOTUS SYMPHONY. This worked quite well but I have found some problems especially with wordprocessor files. All text has to be in the first column otherwise it is very difficult to work with. SYMPHONY will say that it can't alter that section of the document.

Paragraphs transferred to SYMPHONY do not end in a <CR> as SYMPHONY expects. This can lead to all kinds of bother if you format the text again. This also leads to problems when files are transferred back to PIPEDREAM as the <CR> characters at the end of paragraphs appear as an inverse character and must be deleted. User placed page breaks don't seem to be carried over either.

In SYMPHONY it is possible to indent text. The codes to do this are not converted for pipedream so formatting can really make a mess of your text. Spreadsheets normally convert satisfactorily. Any formulae which can not be converted are stored as labels so the user can then rewrite the equation as required.



The IBM transfer program was written for LOTUS 123 which does not have a word processor option so it is not really surprising that there are some problems here. Once you are aware of the problems you can avoid most of them and this then becomes a very useful system.

Keep up the good work.

(John also included a full list of the BBC BASIC commands in the Z88 ROM, which I haven't got space to print. If anyone wants a copy, send me a SAE asking for the list. - Ed)

-----  
Bob Reading  
Maidenhead

Dear Roy,

This is to let you know that I will not be renewing my membership because I have sold the Z88. The reason for it was that I am very interested in radio as you know, and the interference level was stupid and I couldn't get any help or suggestions on how to improve it.

However, I do think you are doing a great job and I wish you every success with it.

PS I've gone for the Amstrad PPC instead!

(Sorry to see Bob leave us. Several members have written complaining about the amount of RF (Radio Frequency) interference given out by the Z88 - there's not much you can do about it, I'm afraid. However CC will have to do something about it on the version of the Z88 they plan to sell in the U.S.A., as their radio emission regulations are much tougher than ours. - Ed)

QUERIES, HINTS & TIPS

Jim Caldwell (0174)

I have a problem with my Star LC-10 printer - after printing it always feeds through a page or a page and a half of paper. Is there any way to make it feed just enough to clear the top cover?

(Your problem is caused by the character 12 in the End of Page field on the second page of the PrinterEd. Character 12 is a Form Feed, which makes the printer waste all your paper! Delete the 12, and feed the paper by hand after printing. - Ed )

I've also managed to lose all files in RAM.1. On entering the Filer command :RAM\*/\*\* to obtain a list of all files, both internal and external the screen went blank and the only way of recovering was a soft reset. However, the reset cleared my external memory, even though the card flap was closed. Was it my command, or a machine fault? Maybe the members can help with the answer.

R.F. Swallow (0442)

I took my Z88 abroad, and I used Ni-Cds, (with spare sets of course), because I was going to be using it a lot, out of reach of any mains for the adaptor. I recharged the batteries at every opportunity, and it worked very well. When I got home I left my Z88 for a couple of days, and when I came to use it, I had lost everything. The batteries had failed while the machine was switched off, and I feel sure there had been no BatteryLow indication when I had last used it.

(This reinforces my usual advice, not to use Ni-Cds inside the Z88. I always keep a set of normal alkaline cells inside, and use an external battery pack with Ni-Cds. The external socket does trigger the Bat Low warning. While on the subject of battery packs and Ni-Cds, Jim asked if I knew of a battery charger which takes 5 cells - Yes, Maplin Electronic Supplies sell their 'Luxury' charger which takes any number of cells from one to six. Cost is about £9, and you will find a Maplin catalogue at your local WH Smiths. - Ed)

I bought a second 128k RAM card, and when I fitted it I found when using the [] CARDS command that it was in fact only a 32k card, despite being clearly labelled 128k. It has now been replaced. (One way around the RAM shortage, I suppose! - Ed )

I think I have found a bug in the operating system, when using a list file with multi file documents. Supposing you have a series of files, - File1, File2, File3, File4 associated with a list file called notes.1  
You can load "notes"- fine. Then press  $\diamond$ FN, for the next file. Fine again - file 2 is loaded. But then press  $\diamond$ FB for the bottom file, and you get "bad file name".  
If you use  $\diamond$ FN each time, it works fine, and the other commands, for previous file and top file, also work.

**Philip Ramage (0435)**

I wonder if any other members can help with a problem I am experiencing when using the Z88 with my IBM: I am writing several batch files on the IBM to import specific end-of-day files.

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This is very straightforward, and enables idiots to do the transfer. However I cannot find a way to automate transfer of batches of files using wildcards, without going through IMPEXP88.

If I automatically repeatedly invoke RX88, it gets clogged up with illegal Ctrl-F's after the first file is transferred. Of course this could be done with some proper assembly language program, but I'd prefer to do it using the MS-DOS batch file language. IMPEXP88 certainly invokes RX88 to do the job.

### Neil Irving (0357)

A printer driver for the Brother HR15 Daisywheel printer, with parallel interface:

Printer On	27,13,80,27,35
end of page	12
allow line feed	YES
HMI prefix	ESC,31
underline on	27,69
underline off	27,82
underline off at CR	YES
bold on	27,87
bold off	27,38
bold off at CR	YES

All other options are set to blank. No need for any translations, except if you have a 'English' daisywheel (with no "!") then translate 33 to 46,8,39 which prints a "." then backspaces and prints a "'", hence printing "!". On the Z88 Panel set baud rate to 9600/9600 and parity to None, and on the HR15 set DIP switch SPEC 2 switch #1 (auto line feed) to OPEN.

Ian Davies (0393)

Regarding the PrinterEd bug mentioned by Chris Rogers in the March/April edition: When 'Allow line Feeds' is set to 'No' the printer driver sends an ASCII NUL BYTE instead of the required ASCII CR.

What's needed is a way to switch the printer's own Auto Line Feed off under software control, rather than by changing the DIP switches, so that you can keep the Allow line Feeds toggle to Yes. There doesn't seem to be an Epson code to do this, but if your printer can be switched in software from Epson to IBM Graphics Printer compatibility, you can use the IBM code instead.

My printer is a Citizen LSP-10 (a 120D in drag). Settings needed are as follows:

Printer On	27,64,27,126,53,1,27,53,0
Printer Off	27,64
Italics On	27,33,64
Italics Off	27,33,0
Translate £ to	27,109,4,156

One other little problem with PrinterEd:

If you prefer **not** to have highlights, underlining etc. switched off at the end of a slot, you may find that the on-screen representation of bold, italics etc. get all mixed up on screen. They seem to print out o.k.; it's just that the on-screen representation doesn't take account of the fact that you've told PrinterEd not to switch them off at the end of each slot (each line).

Michael J. Sims (0518)

I have found a problem using the VT52 terminal emulator. The bug concerns the parity of characters that are received by the VT52 emulator. All transmitted characters have the correct parity as set in the Panel, but if these transmitted characters are fed back into the Z88 via a loopback of the Tx and Rx pins of the serial port, then some of these characters will be wrongly displayed, depending on the actual parity used.

The root cause is that, except for MARK parity, the parity bit is not stripped off prior to display, so that if the parity bit is set, then the character has an ASCII code above 127, and all such codes are displayed on the Z88's screen as a small black square.

Thus in ODD or EVEN parity, half of the ASCII set will be unreadable, even if the parity of the received characters is correct according to the Panel.

In MARK parity, the parity bit is stripped off first, otherwise you would not be able to display anything. In the other modes, SPACE and NONE, the parity bit is always clear, or in the case of NONE no character with a code above 127 can be typed at the keyboard anyway.

Cambridge Computer's response when I 'phoned them was to say that one should use MARK or SPACE parity whenever this was possible. An upgrade ROM might be released later, if enough people complained to convince them that it would be worth the effort. (See Newslines - Ed)

**ANONYMOUS (I'VE LOST THE CONTRIBUTORS DETAILS!)**  
The following is the wiring between the Z88 and Epson RX80 printer using the miracle QL parallel interface.

PARTS 1 male 9 way D connector.  
1 female 9 way D connector.  
Tools 1 soldering iron, solder 1 knife.  
continuity meter or test bulb and battery.

Cut the BT type plug from the Miracle interface leaving sufficient length for use with the QL in future, say 12 inches. Prepare the leads for soldering.

Open the interface and identify the colour of the wires. If different from this diagram amend diagram accordingly. i.e. the left hand lead, the one nearest to the cable entrance to pin 7, next wire to pin 2 etc.

To the lead to the interface, connect the MALE 9 way D plug, this is the one that will fit into the Z88, as follows:-

Pin No	Colour	Interface
1		Black
2	White-----	White
3	Green-----	Green
4	Blue-----	Blue
5	Red-----	Red
6		--Orange
7	Black--	
8		
9	Orange--	

Pins 1, 6 and 8 are unconnected. Wire up the female 9 way D plug to the BT plug to match. Test the leads for continuity.

# Wordmongers Ltd.

21 Edison Rd., Rabans Lane, Aylesbury, Bucks. HP19 3TE  
Tel.(0296) 437878. Prestel 029634822. Telecom Gold 84:WOT001

## Terminal Software

There are currently three varieties of this suite available for the Z88.

The three versions are:

### G-term.

Wordmongers' G-term is a variant of Z-term specially tailored for easy access to Telecom Gold and the other parts of the international Dialcom network. Wordmongers' G-term for the Z88 incorporates most of the features of Z-term, as described above, with the additional benefit of automatic log-on to Telecom Gold.

#### G-term Features:

- Hayes, Miracle systems and dumb MODEM compatible.
- File transfer using X-MODEM.
- ASCII text file capture and transmission using XON/XOFF flow control.
- Autodial directory facility for 5 numbers.
- Automatic log-on to Telecom Gold when connected directly or when connected via PSS.

G-term is £49.99 per copy inc. VAT.

### Z-term.

Wordmongers' Z-term is a comprehensive terminal package for the Z88.

#### Z-term Features:

- Prestel and teletype.
- Hayes, Miracle systems and dumb MODEM compatible.
- File transfer using X-MODEM.
- ASCII text file capture and transmission using XON/XOFF flow control.
- Autodial directory facility for 5 numbers.
- 5 user defined function keys.

Z-term is £49.99 per copy inc. VAT.

### M-term.

Wordmongers' M-term is another variant of Z-term tailored for the Mercury 7500 electronic mail system. Wordmongers' M-term for the Z88 incorporates most of the features of G-term, as described above, with the additional benefit of automatic log-on to Mercury 7500.

M-term is £49.99 per copy inc. VAT.

**10% discount to club members (except MODEMS).**



# Wordmongers Ltd.

21 Edison Rd., Rabans Lane, Aylesbury, Bucks. HP19 3TE

Tel.(0296) 437878. Prestel 029634822. Telecom Gold 84:WOT001

## Wordmongers' PPS Phone Post System.

This system is a private electronic mail system that sends a message, a complete file or even a picture via the telephone lines anywhere in the world. It uses standard micro-computers and MODEMS plus our economically priced PPS software.

PPS Base (IBM or Apricot) . . . . .	£99.50
PPS Terminal software – IBM/Apricot . . . . .	£49.99
PPS Terminal software – Cambridge Z88 . . . . .	£49.99

## Wordmongers' TX file transfer system.

File transfer is about sending a copy of a file, in its entirety, from one micro to another. The Wordmongers' TX package is now available for over 100 different micros including most popular CP/M and MSDOS machines as well as PC compatibles and the Sinclair QL.

TX has been in use for over 5 years.

TX is supplied for the pair of machines required. This pack contains the disk or cartridge for each of the pair to be linked, a manual and a cable.

A TX pack for a pair of machines, one of which is the Z88, is . . . . . £99.50

Wordmongers software is licensed not sold. The full details of the software licence are available upon request from Wordmongers Ltd.

Prices are valid from April 1988 and include VAT at 15%. Postage and packing must be added to the amount you send at the rate of £2.00 for letter or parcel post.

Access and Barclaycard accepted.

## MODEMS

### Acoustic couplers

1200/75 version . . . . .	£49.99
300/300 . . . . .	£138.00

### Direct connect MODEMS

Worldport 1200 is a new small Hayes compatible pocket MODEM £172.50

The Answercall MODEM is a 300/300 direct connect MODEM . . £69.95

Miracle Systems Autodialling 1275 MODEM inc. cable . . . . . £49.99

WS4000 is a Hayes compatible desktop MODEM which can be supplied in a variety of formats from 300/300 to 1200/1200. i.e. WS4000 V22 . . . . . £479.00

MODEM cable (if required) . . . . £9.99

## Games

32K EPROMS – Normal price and we throw in a game. When you are bored with the game, use it as a normal EPROM. . . . . £19.95

Or as a real challenge, The Withered Toad Adventure game. . £24.95

## Terminal Software

Z-term – General purpose with X-MODEM and user defined function keys.

P-term – Wordmongers' PPS terminal.

G-term – Telecom Gold terminal.

M-term – Mercury 7500 terminal.

All terminals cost . . . . . £49.99

# Scorpio Systems

P.O. Box 286, Aylesbury, Bucks. HP22 6PU.

Phone: (0296) 624868

## Disk Copying / File Transfer

Do you need to get data to or from Z88 EPROM Packs, 3", 3.5", 5.25" or 8" disks? Then let Scorpio Systems do the transfer for you. With our Multi-Format system we can read, write and format disks of most machines that use any of the following Operating Systems:

*CP/M 2.2, CP/M-86, MP/M, MP/M-86, CP/M-68K,  
PC-DOS and MS-DOS.*

e.g. this *includes* disks from Altos, Amstrad, Atari, Benchmark, Canon, Cromemco, DEC, Epson, Equinox, Future, Gemini, Hewlett Packard, IBM, ICL, ITT, Kaypro, Logica, LSI, Merlin, Mimi, Morrow, NCR, NEC, Newbrain, Osborne, Research Machines, Xerox, Zenith, Zorba, etc. — over 1000 machine/format combinations in total.

(We can NOT transfer Apple, Commodore or hard-sectored formats.)

We can also transfer between any of these formats and Z88 EPROM Packs.

Transfers are £10 per disk (less for more than one of the same format), plus £1 P&P per order and VAT.

Contact us if you require a full list of formats or any other details.

## Desk-Top Publishing

Scorpio Systems also provides a desk-top publishing service. Have you any data sheets, manuals, brochures, advertisements, reports, etc., that could do with enhancing?

We can enter the text from your typed or hand-written copy, we can read disks from virtually any system (see above), or we can even read Z88 EPROM Packs! Wordprocessor files that we can read include:

*Displaywrite III and IV (DCA), Microsoft Word, Multimate, Pipedream, Wordperfect, Wordstar, Xerox Writer, Xywrite, or any standard ASCII file.*

Pictures and graphs can also be incorporated in the documents.

Contact us if you require further details or samples.

PROGRAM - TWENTY-ONE LETTER TRICK

by David Hambly (0173)

```

10 CLS:PRINT"Z88 MAGIC by David Hambly"
20 PRINT"Choose and remember a letter.
   Which row is it in"
30 F$="Now which row please?"
40 A$=" H M C T O J U" (Note that each $ is
50 B$=" L A K G S Q E" 14 chrs long with
60 C$=" D R I P B N F" spaces before each
70 FOR A =1 TO 4 letter)
75 IF A>3 THEN GOTO 340
80 PRINT:PRINT "ROW 1>>";A$
85 PRINT"ROW 2>>";B$
90 PRINT"ROW 3>>";C$
100 K$=GET$
110 IF K$="1" THEN D$=C$+A$+B$:GOTO 150
120 IF K$="2" THEN D$=A$+B$+C$:GOTO 150
130 IF K$="3" THEN D$=B$+C$+A$:GOTO 150
140 ELSE GOTO 100
150 RESTORE
155 A$=""
160 FOR C=1 TO 7
170 READ D
180 E$=MID$(D$,D,2)
190 A$=A$+E$
200 NEXT C
205 B$=""
210 FOR C=1 TO 7
220 READ D
230 E$=MID$(D$,D,2)
240 B$=B$+E$
250 NEXT C
255 C$=""
260 FOR C=1 TO 7
270 READ D
280 E$=MID$(D$,D,2)

```

## Z88 EPROM - MAY-JUNE 1988

```
290      C$=C$+E$
300      NEXT C
310      CLS:PRINT F$:NEXT A
340      E$=MID$(D$,21,2)
350      CLS:PRINT"YOUR LETTER IS >>>>>>>>>";E$
360      PRINT:PRINT "THAT IS COMPUTER Z88.
      MAGIC, JUST FOR YOU"
370      PRINT:PRINT"PRESS ANY KEY TO PLAY AGAIN"
380      K$=GET$:RUN
500      DATA 1,7,13,19,25,31,37
510      DATA 3,9,15,21,27,33,39
520      DATA 5,11,17,23,29,35,41
```

### NEW DATABASE BY WORDMONGERS - SAVE £15

Wordmongers are developing a fully interactive relational database for the Z88, and Users' Club members can be involved in the development of the program. Provisionally called ZBase, the program is similar to dBaseII, and allows 32 fields per record, with records up to 64k in size. Two files can be open at once, and the program can be run by command files under PipeDream.

The first version of the program, which will retail for at least £50, is just about finished, and Wordmongers want 50 people who will help identify any minor bugs before the program is released generally. The first 50 people who send Wordmongers a cheque for £35 will get the early version of the database, and will be required to report any bugs they find back to the authors. When all the little bugs have been found, your development software will be replaced free of charge by the final version.

Wordmongers tell me that the very worst that should happen while you are testing the program is a soft reset, so if you want to be one of the first people with a database on your Z88, get out your cheque books.....

MAIL-MERGE WITH PIPEDREAM

By Simon Phipps (0221)

I am becoming more and more impressed with the power of PipeDream on my Z88. In particular, I have discovered that it is quite possible to perform a mail-merge application very simply due to the ability to mix text and spreadsheet in one task. I have achieved this by creating a closed loop of cells which recurse down a list of names and addresses. The top part of the document is the letter to be printed; the bottom part is the list of names, addresses and other data; and between the two comes a few slots of recursive logic to select the next name to print. Below is a listing of the complete sheet which you can type into your Z88 (include the blank lines but miss out the + which are there just to mark them!) and save as Plain Text, then load as a PipeDream file.

%OP%BON

%OP%AMM

%CO:A,12,72%Dear @A5@,

This is a letter to tell you you owe @B5@ on your forthcoming holiday.

+

%V%R%lookup(C5,C6C15,A6A15)

Adam Ant

Bill Brown

## Z88 EPROM - MAY-JUNE 1988

Chris Cat  
Derek Drake  
Ernie Ellis  
%CO:B,12,60%  
+  
+  
+  
%V%%R%%LC%lookup(C5,C6C15,B6B15)  
%V%%R%%LC%1  
%V%%R%%LC%2

### SOFTWARE LIBRARY - Z88 BASIC PATCH

By Richard Russell (0365)

This program is 2k of machine code; written by Richard, who wrote the Z80 version of BBC BASIC used in the Z88; which gives Z88 BASIC graphics commands in a new graphics window, and implements a line editor using a new command, \*EDIT line number, which presents the chosen line for editing, a facility sorely missed on the Z88.

The new graphics commands are MODE n, which allows selection of either the normal text-only MODE 0, or the new MODE 1 text and graphics display. Here the Z88 display is split into two windows - a text window of 8 rows of 50 characters on the left, and a graphics window 64 pixels high by 256 pixels wide on the right.

As well as the normal CLS, which still clears the text window in MODE 1, there is also CLG which clears just the graphics window.

## Z88 EPROM - MAY-JUNE 1988

Other new graphics commands include DRAW x,y, MOVE x,y, and PLOT n,x,y. This latter command is the 'Jack of all trades', since 'n' can be between -1 and 103, giving different types of plot including lines, dotted lines, triangles and rectangles in black, white or inverse. POINT x,y returns the state of a given pixel.

The patch is implemented by CHAINing it into BASIC before you begin writing or load in your program. It remains there until BASIC is killed or a reset is performed.

The Patch is available to all members and will be copied onto your own EPROM cards. Together with the 2k of Patch machine code, there is a four page file of documentation, and a short BASIC program Richard has written to demonstrate the graphics facilities. To get your copy of the BASIC Patch, send the following to the Club:

An EPROM card  
Stout return packaging and return label  
Return postage  
A note requesting the 'BASIC Patch by Richard Russell'

If all the above are not received, particularly return postage, I shall not return the EPROM! The best form of packaging is a small jiffy bag.

DO NOT send EPROM cards in normal envelopes, as they simply will not stand up to the Post Office handling.

No responsibility can be taken by the Club for EPROMs lost in the post, so if you are sending a large EPROM I suggest recorded delivery.



## Z88 EPROM - MAY-JUNE 1988

Don't forget to include sufficient return postage to cover this. You may send an EPROM that needs erasing, but please remember to include the 50p erasure fee.

There are a few other programs which can be copied onto your EPROM if you wish:

CHANGE - A currency exchange program (in French!) written by Semaphore Logiciels, the Swiss Z88 distributor.

TWENTY-ONE by David Hambly      All taken from  
MAGIC NUMBER by David Hambly      previous copies  
3 CARD TRICK by David Hambly      of Z88 EPROM.  
PASSWORD by Phil Borman

If you want this complete set of programs, send a blank 32k EPROM card and ask for "Compilation One".

### SMALL ADS

#### **\*\* FOR SALE \*\***

SPECTRUM MICRODRIVE AND INTERFACE ONE, MANUAL,  
DEMONSTRATION PACK PLUS FOUR BLANK CARTRIDGES,  
COST OVER £100 - AS NEW - JUST £30  
ROBERTS ON 051 428 9449

#### **\*\* FOR SALE \*\***

Z88 CARRY CASE, 2X 32K RAM, 2X 32K EPROM -  
BRAND NEW UNWANTED GIFT - COST £89.90, WILL  
SELL FOR JUST £81 THE LOT  
C G FERRARO 0242 514213 ANYTIME

#### **\*\* EXCHANGE \*\***

ANYONE INTERESTED IN A STRAIGHT SWOP? 128K RAM  
REQUIRED IN EXCHANGE FOR 128K EPROM.  
ROBERTS ON 051 428 9449

**\*\* NEXT ISSUE OUT MID JULY \*\***

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ALL TRADEMARKS ACKNOWLEDGED